

OZARK-ST. FRANCIS NATIONAL FORESTS  
LAND AND RESOURCE MANAGEMENT PLAN

Amendment 5  
April, 1991

This Amendment 5 amends the Ozark/St. Francis Forest Land and Resource Management Plan to reflect the terms of the agreement between Forest Service and parties to Appeal 1748 of the Forest Plan.

The Ozark/St. Francis Forest Land and Resource Management Plan was approved in its final form on July 29, 1986. The Plan was appealed by various citizens and interest groups. Over the last 2 years the Forest has discussed these concerns in detail with appellants, members of the public and any other parties expressing interest. On June 7, 1990 an agreement was reached in Appeal 1748. It was agreed that the terms of the agreement would be incorporated into the Forest Plan through an amendment. This document is that amendment. It is limited in scope to the terms of the June 7 agreement.

The management of the Ozark/St. Francis is committed to the letter and intent of the settlement. The settlement represents an amicable settlement of issues about which appellants and other members of the more general public are deeply convicted. The only provisions of the agreement that do not appear in this amendment are those items which are agreements to take certain one time or short term actions and which do not constitute Forest Plan level direction. The Settlement Agreement is included as Appendix A to this amendment.

The plan is amended as follows:

Add the following under "Transportation" on page 4-3:

--have a road program that produces no increase in on-the-ground road miles.

Add the following under "Roads" on page 4-19:

Inventory, map, and specify the management objective for each Forest road by January 1, 1991. Some of the products of this inventory will include an administrative map showing the road system plus a statistical and classification data inventory for each road. Inventoried roads will be shown on a general forest map of 1 inch to 1 mile scale. This map will be available for public review and copying. Another goal is to build or rebuild local roads to the lowest standards necessary for the intended use and to close those roads after the use is complete. Additionally, determine and reanalyze the density of the current and proposed forest road network.

Add the following monitoring items and descriptions to the monitoring plan at the bottom of page 5-12:

**Activity:** Water quality monitoring of at least one harvest site each year that will provide a representative sampling of soil types, slopes, physiographic provinces, and harvest unit sizes, and that such monitoring shall take place before, during, and after timber sales. Monitoring of clearcut harvest sites will be of top priority. Sites will be chosen such that the impacts on a headwater stream will be determined. Interested publics and water quality experts must be invited to participate in choosing the objectives and the monitoring sites. It is appropriate to choose a site such that samples above a clearcut and below a clearcut could likely show activity related impacts. High flow volume and previously impacted streams are inappropriate monitoring sites to show management impacts and will not be employed. Special emphasis will be placed on the analysis of water yield impact for basins that are greater than 75% forested. This analysis of water yield impacts will be done for basins of less than 10 square miles and which have 15% or greater of basin area in even-age stands of 0-15 years.

**Monitoring technique and data sources:** Monitoring will include field observance, aquatic monitoring, and water quality measurements with automatic continuous samplers. Water monitoring will not be limited to visual, perceptual, and occasional grab samples.

**Purpose:** to determine timber harvest impacts upon water quality on headwater streams.

**Measurement frequency and Report Time:** The minimum number of harvest sites to be monitored shall be one per year and each site shall be monitored for at least three years or until downstream parameters return to approximately match those of upstream parameters, whichever is longer. Additional monitoring sites should be undertaken if results show such need. The Forest agrees to install three primary monitoring stations that will include background water quality monitoring and monitoring of harvest activity and will be carried for at least three years after impact or until parameters return to pre-harvest levels, whichever is longer. At least one primary monitoring site shall be commenced by FY 1991, the second by FY 1992, and the third by FY 1993. The primary sites shall include a wider range of water quality parameters than normal annual sites. Realistic, long-term, and repetitive monitoring of changes in pH of streams will be undertaken. This will necessarily include pH analysis of representative samples taken by continuous sampler or other methods.

**Precision:** Moderate.

**Reliability:** Moderate to high.

**Variability:** Significant impacts to the channel or biological indicators that exceed water quality standards.

On page 4-14 replace the first paragraph (beginning "Maintain vegetative filter....") with the following:

During timber sale preparation and project analysis, the Forest will map streams to be protected during timber harvesting and will maintain vegetation filter strips at least 50 feet wide on each side of streams which have drainage basins of 20 acres or larger. Pertaining to timber sale design the Forest will maintain at least a 75% forest canopy closure for 100 feet on each side of all streams with riparian ecosystems and 50% forest canopy closure for 50' on each side of intermittent and ephemeral streams with accumulated basin areas of 20 acres or more. Work with individuals and organizations to continually protect, enhance, and monitor water quality on the forest and to address ongoing concerns over real and potential threats to water quality.

Insert the following under Management Prescriptions, Activities and Requirements on page 4-34:

Management area direction for Management Area 8 General Forest will apply to all land within this management area with the following exceptions:

On the approximately 35,000 acres in the Indian Creek, White Rock, and Penhook special interest areas there will be no scheduled timber sales for the remainder of the current planning period. The Forest will work with appellants, State Agencies and other interested parties to establish appropriate and manageable boundaries for each of these special areas.

On the approximately 21,000 acres on the Pedestal Rocks area the established compartment examination and prescription schedule will be followed, however, the following standards will apply:

- a. Reconstruct and construct roads to the lowest needed standards.
- b. Close intermittantly needed roads and revegetate them as soon as projects are completed.
- c. Keep roads needed year-round open.
- d. Obliterate existing un-needed roads.
- e. Describe and delineate logical unit boundaries to minimize conflicts between other uses or users.
- f. In stands planned for regeneration, the forest will use shelterwood, seed tree, group selection or single tree selection. Visual quality objec-

tive and forest type will determine type of cut consistent with policy stated in section VII of this agreement. Clearcutting will not be used within the Pedestal Rocks area.

On the 15,000 to 20,000 acres in and/or adjoining the following sites: Dismal Creek, Sugar Creek, Stack rock, Hare Mountain, Dismal Hollow, Buzzard Roost Rocks, Spring Creek, Blue Hole, Lower Graves Creek, Eagle Gap, and Mt. Magazine no timber sales will be scheduled for the remainder of the current planning period. Delineation of the aforementioned areas will not exclude study and protection of other areas on the Forest in the future that have potential value worthy of protection. The Forest will establish tentative boundaries for these areas in cooperation with interested agencies and individuals.

Over the next five years the Forest, working with Appellants, State Agencies, and interested publics, will identify geological, biological, cultural, and scenic features, establish manageable boundaries and develop management objectives and direction for each area.

Provisions of this management direction do not apply to contracts already existing as of June 1, 1990.

Add the following under "Wildlife and Fish" on page 4-6:

Maintain the MIS list as dynamic. Proposed additions will be given serious consideration on an ongoing basis.

Actively cooperate with the Arkansas Game and Fish Commission, Arkansas Natural Heritage Commission, and the U.S. Fish and Wildlife Service to conduct a survey to determine if mountain lions occur on the forest. The State agency will take the lead on the project through its Office of Endangered and Threatened Species. This part of the project will be conducted by a recognized expert in mountain lion detection. The project will be expanded to include species and sub-specific identification and habitat needs if the occurrence of wild mountain lions is authenticated.

Add the following under "Wildlife Habitat Improvement" on page 4-7:

Conversion of pine stands to hardwood stands may be done where wildlife could benefit from this practice.

Add the following to page 4-3 between "Fire" and "Insect and Disease":

Herbicide Use

A goal is to minimize the use of herbicides, to employ only those products considered to be low

risk and to use herbicides only in those situations where the benefits are determined by analysis to exceed those from alternative methods of vegetative management.

Amendment #4 to the Forest Plan, which contains methods and tools available for use in the FEIS Vegetation Management in the Ozark/Ouachita Mountains, provides direction for herbicide use on the Ozark-St. Francis. Additionally, the Forest will reduce or eliminate herbicide use wherever possible, consistent with protection of other resource values and attainment of multiple use objectives. When herbicide use is selected, only products which will meet desired objectives, while posing the least risk to people, wildlife, and other environmental elements, will be used. The Forest will use the most recent technology and information on herbicides to determine hazards, risks, and appropriate mitigation measures. The herbicide considered to be of lowest risk will be used whenever there are two or more herbicides which are equally effective in accomplishing Forest Management objectives. Only those herbicides which have been approved for use by EPA will be applied. Should the EPA or a nationally recognized public health agency recommend that a herbicide should be removed from or limited in its use, the Forest will immediately analyze the information and take appropriate action. No herbicides will be applied by aerial application. Additionally, there will be automatic sample monitoring and/or biological sampling, if appropriate, of representative herbicide use as to any possible off site movement and entrance to the surface and groundwater systems."

Add the following to page 4-21 between "Prescribed Burning" and "Social and Economic":

Herbicide Use

When applying herbicides, take reasonable precautions to keep herbicide away from water sources, crops and private inholdings within and adjacent to the Ozark-St. Francis National Forest.

Cooperate with appellants, universities, professional research scientists, and other interested parties, to study representative biological species, such as water snakes, to determine the

degree to which such herbicides are bioaccumulated by wildlife in the Forest ecosystem.

Add the following to page 4-2 under "Timber":

--move toward less intensive management techniques including uneven-age and modified even-age harvest cutting methods.

On page 4-46 Table 4-11 (and its footnotes) is replaced in its entirety by the following:

Table 4-11

Vegetation Management Practices

<u>Practice</u>	<u>Acres<sup>1</sup></u>	
	<u>Pine</u>	<u>Hardwood</u>
Even-aged Mgmt. Regeneration Harvest		
Clearcut	1350	1000
Seed tree	700	0
Shelterwood	600	500
Uneven-aged Management Harvest <sup>2</sup>		
Individual Tree Selection	3000	0
Group Selection	0	4200
Commercial Thinning <sup>3</sup>	4900	1300
Timber Stand Improvement <sup>3</sup>	5000	1600
Reforestation	3150	2200

1 Estimated acreage to be sold annually for the remainder of the Plan decade (FY 1991-1996). The Forest agrees that it is very important to adhere closely to these acreages without exceeding total ASQ for the Plan period.

2 Selection harvest acres are total stand acres to be worked over. Group selection harvest in about 4200 acres of hardwood stands will result in about 700 acres of small openings being created annually. Single tree selection harvest in about 3000 acres of pine stands will result in about 500 acres of regeneration annually.

3 Such activity will not be employed to change the relative ratio of basal area of pine to hardwood.

4 Includes natural and artificial. Replanting is not included.

Modify Paragraph 1, p. 4-10 of the Plan by striking sentence two and substituting the following in its place:

"The goal on the Ozark-St. Francis will be to achieve an average regeneration opening size of 30 acres in pine and 20 acres in hardwood. A maximum regeneration stand size of 50 acres in pine and 30

acres in hardwood will generally be adhered to. Stands above these maximum sizes, up to 80 acres for pine and 40 acres for hardwood, will require Forest Supervisor approval after adequate notice for public input."

Add the following as paragraph 3, p. 4-10:

"Steepness of slope will be considered in determining the size of regeneration opening. As a general rule, smaller sized openings will be located on the steeper ground and larger openings will be confined to more gentle slopes. Small sized (5-10 acre) openings will be created in areas where browsing wildlife habitat development is of primary concern."

Change the last paragraph on page 4-10 to read as follows:

Utilize Landscape Management principles in laying out and harvesting timber sales and in carrying out subsequent silvicultural operations. It is the goal on the Ozark-St. Francis National Forests to lay out and harvest timber sales and do follow-up silvicultural activities with minimum impact on the visual resource. In order to accomplish this use techniques established in (National Forest Landscape Management, Volume 2, Chapter 5, "Timber", and Agriculture Handbook 559), to meet visual quality objectives. Favor long-lived species, specimen trees and trees of special interest for foliage, coloration, form and branching habit along roads, trails and streams. Use shelterwood or selection cutting in pine stands with retention VQO or where these methods are shown to be the appropriate method of timber harvest or are needed to address public concerns.

Change the first two sentences in paragraph 4, page 4-35 to read:

"Timber. Appropriate harvest cutting methods for pine types are seedtree, selection, shelterwood and, where it is determined to be the optimum method, clearcutting. Selection cutting is considered to be preferred where the VQO is retention or where this method is shown to be the appropriate method of timber harvest or to address public concerns. In pine stands classed as retention VQO, harvest cuts will be done using selection cutting or shelter wood cutting methods. In retention areas with high sensitivity, overstory trees will be retained after shelterwood cutting until the new stand achieves at least poletimber size."

Delete the last sentence of paragraph 4, page 4-37 and add the following statement:

"A regeneration potential survey will be done on each stand being considered for harvest cutting. Stem diameter will be considered in determining the adequacy of advanced regeneration. In situations where advanced regeneration plus sprouting potential is not considered adequate to insure regeneration of the stand to an acceptable species

composition, measures will be initiated to increase numbers and size of oak and other desirable seedlings in the understory. Various types of shelterwood cutting in combination with understory treatments and/or underplanting appear to be the most appropriate measures to achieve this result. Where such treatments are initiated, the overstory will not be removed until advanced regeneration is adequate to restock the area. The Forest will continue to cooperate with researchers from the Southern and North Central Forest Experiment Stations to develop and refine techniques for successfully regenerating oak stands. As soon as practical, begin using diameter distribution regulation techniques in hardwood stands being managed under uneven-aged systems. Necessary training for Forest personnel to equip them to apply such techniques will be provided. In the interim, the Forest will continue to implement uneven-aged management in hardwood stands using an adaptation of the area regulation method."

Add on page 4-35 just above "Specific requirements by prescription are:" the following paragraph:

Pine stands managed under the selection system will be regulated using techniques recommended by UAM School of Forestry and the Crossett Experimental Forest.

Add the following five paragraphs to Management Prescriptions, Activities, and Requirements on page 4-34 :

Mixed Species Management - The Forest is committed to maintaining a healthy forest with a mix of species. Ozark-St. Francis National Forest policy is to manage and perpetuate mixed forest types wherever they occur. Equal consideration will be given to leaving good form hardwood trees along with pine trees during thinning operations in mixed stands. When mixed stands are regenerated, site preparation and reforestation methods will be designed to produce a new stand of mixed forest type".

Intermediate Stand Treatments: During project analysis, intermediate stands will be classified or re-classified utilizing the previously mentioned criteria for determining stand type. Intermediate stand treatments will be designed to retain approximately the pine/hardwood ratios (trees 4.5" d.b.h. and larger) existing at time of stand examination. Equal consideration will be given to leaving good form hardwood trees along with pine trees during thinning operations. Enough such trees (4.5" dbh and larger) will be retained in mixed forest types to insure that the mixed classification will be retained. In stands typed as pine forest types, enough such hardwood trees will be retained to insure that approximately the initial pine/hardwood ratio will be retained.

Regeneration Objectives: For stands classified as pine types, on all sites, the regeneration objective will be to reestablish a pine stand following harvest. When harvested, such stands will be regenerated



using suitable site preparation and planting or seeding methods which may include mechanical treatments, chemical applications, felling and burning or combinations of these treatments. Treatments will be designed to insure establishment of a new stand consisting of at least 70% pine but not to produce a "pure" pine stand. Hardwood inclusions will be retained as needed to meet wildlife habitat coordination and mixed conditions requirements. Individual hardwood trees will be permitted to occupy the site along with pine trees without suppressing the pine or exceeding the 30% limitation.

For stands classified as hardwood types, on all sites, the regeneration objective will be to reestablish a hardwood stand using suitable site preparation methods with a goal to maintain, as far as possible, existing species composition.

For stands classified as mixed pine/hardwood or hardwood/pine types, on all sites, the regeneration objective will be to reestablish a stand of mixed condition approximating the species composition existing prior to harvest.

Add the following to paragraph 2, p. 4-7:

"Most stands assigned to the old growth management prescription will be hardwood or hardwood-pine forest types. However, where suitable pine or pine/hardwood stands occur, they will occasionally be assigned to old growth prescriptions."

Add the following to page 4-3 just above "Recreation":

#### Public Information and Involvement

It is forest policy, in its public participation program, to include the following:

- a. To make meaningful public involvement an integral part of any planning program and project, and not a separate procedure.
- b. To begin public participation at the earliest possible stages to assist in: (i) identifying and resolving problems; (ii) assessing need; (iii) developing work plans and planning strategies; (iv) gathering data and monitoring; (v) formulating alternative and estimating their consequences; (vi) analyzing, evaluation and comparing trade-offs among various alternatives.
- c. To provide full and timely information regarding impending Forest decision and to give ample opportunities for the public and cooperating agencies to be involved in the Forest decision making process.

- d. To identify the publics affected by a particular program or project and to facilitate their participation in all phases of the planning process.
- e. To respond to public recommendations in a documented, visible, and timely manner.
- f. To document public participation and describe how the public's input was used in the decision making process.

In order to respond positively to public desire for an active role in Plan implementation and to adhere to policy concerning public participation, Forest personnel will work with representatives from interested groups in the ongoing management of the Forest. Information sharing meetings will be held at least semi-annually.

Add the following at the bottom of page 4-39:

The Forest recognizes the importance of the White Rock cabins complex and has joined with the Friends of White Rock organization to restore and maintain the cabins and surrounding area. The objective (target) date for completion of such restoration is FY 95.